

Table showing for the month of January, &c.—Continued.

States and stations.	Rainfall of 10 inches, or more, per month.		Rainfall of 2.50 inches, or more, in 24 hours.			Rainfall equaling or exceeding one inch per hour.			
	Year.	Amt.	Year.	Day.	Amt.	Year.	Day.	Time.	Amt.
<i>Tennessee.</i>		<i>Inches.</i>			<i>Inches.</i>			<i>h. m.</i>	<i>Inches.</i>
Chattanooga.....	1882	14.74	1879	8-9	2.77				
Do.....			1879	11-12	3.32				
Do.....			1882	15-16	2.92				
Do.....			1886	2-3	3.04				
Do.....			1887	23-24	3.54				
Knoxville.....	1882	16.98	1875	28-29	2.82				
Do.....			1879	8-9	3.60				
Do.....			1879	11-12	3.30				
Do.....			1882	16-17	2.51				
Do.....			1882	20-21	2.74				
Do.....			1882	28	2.94				
Do.....			1883	20	3.50				
Memphis.....	1882	12.87	1872	15-16	3.50				
Do.....			1872	1-2	2.53				
Do.....			1875	27-28	3.96				
Do.....			1880	16-17	2.92				
Do.....			1882	16-17	3.06				
Do.....			1887	22-23	3.08				
Nashville.....	1882	14.51	1882	12-13	2.77				
<i>Texas.</i>									
Clarksville.....	1875	12.25	1874	22	2.50				
Do.....			1874	31	4.00				
Do.....			1875		6.50				
Galveston.....			1877	21	3.61	1879	31	1 05	1.47
Do.....			1883	5-6	3.48				
Do.....			1885	15-16	3.04				

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	Year.	Amt.	Year.	Day.	Amt.	Year.	Day.	Time.	Amt.
<i>Utah.</i>		<i>Inches.</i>			<i>Inches.</i>			<i>h. m.</i>	<i>Inches.</i>
Coalville.....			1875	14-15	2.70				
Mount Carmel.....			1874	3	4.00				
Do.....			1874	15	4.00				
Do.....			1874	20	3.00				
<i>Virginia.</i>									
Lynchburg.....			1885	23	6.32				
<i>Washington.</i>									
Canby, Fort.....	1887	11.91							
Catalamet.....	1874	14.53							
Neah Bay.....	1874	30.50							
Do.....	1879	13.93							
Do.....	1884	15.50							
Do.....	1885	17.70							
Do.....	1886	16.40							
Do.....	1887	22.30							
Olympia.....	1880	10.69							
Pysht.....	1884	11.29							
Do.....	1885	14.31							
Do.....	1886	11.44							
Do.....	1887	13.76							
Tatoosh Island.....	1884	13.32	1884	10-11	4.06				
Do.....	1885	14.47	1884	11-12	4.00				
Do.....	1886	16.82	1885	5-6	3.43				
Do.....	1887	14.46	1885	6-7	3.40				
Do.....			1885	29-30	2.62				

WINDS.

The most frequent directions of the wind during January, 1888, are shown on chart ii, by arrows flying with the wind. In the upper Mississippi, Missouri, Ohio, and Saint Lawrence valleys, Lake region, and in the states bordering on the Atlantic, the most frequent directions were generally westerly or northwesterly; along the Gulf coast, northerly; on the Pacific coast and in the Rocky Mountain regions, variable.

HIGH WINDS (in miles per hour).

The maximum velocities of wind for January, 1888, at Signal Service stations where the movements are registered,

are given in the table of miscellaneous meteorological data. Other than the maximum velocities given in the table referred to, the following velocities of fifty, or more, miles per hour have been reported: Pike's Peak, Colo.,* 84, nw., 1st; 84, w., 2d; 80, w., 3d. Buffalo, N. Y., 50, w., 10-11th. Fort Totten, Dak., 50, s., 11th. Huron, Dak., 50, nw., 13th. Fort Canby, Wash., 52, s., 22d; 54, s., 26th; 68, s., 28th; 54, s., 29th. Tatoosh Island, Wash., 54, s., 25th; 53, se., 27th; 51, s., 28th. Wood's Holl, Mass., 50, w., 26th.

* At Pike's Peak, only, velocities exceeding seventy-five miles are given.

INLAND NAVIGATION.

ICE IN RIVERS AND HARBORS.

Frenchman's Bay.—Bar Harbor, Me.: there was much ice in the bay during latter part of month; navigation closed 28th.

Casco Bay.—Portland, Me.: the harbor was frozen over with thin ice from the 24th to the 28th, making navigation difficult. During the storm of the 26th the bay was completely filled with ice, rendering navigation impossible.

Boston Harbor.—Boston, Mass.: the harbor was almost entirely frozen over on the 23d.

Holmes Hole Harbor.—Vineyard Haven, Mass.: the harbor was frozen over from the 17th to the 23d.

Nantucket Harbor.—Nantucket, Mass.: the harbor froze over on the 21st, closing navigation.

Wood's Holl Harbor.—Wood's Holl, Mass.: the harbor was blockaded with ice and frozen solid to Nantucket Island on 21st. Buzzard Bay was also frozen for several hundred yards from the shore; all navigation was temporarily suspended on the above date.

Edgartown Harbor.—Edgartown, Mass.: the harbor froze over on the 24th and remained frozen to the end of month.

New Haven Bay.—New Haven, Conn.: the harbor froze over on the 17th.

Lake Champlain.—Burlington, Vt.: the lake froze over on the 22d, seven days earlier than the average date for the last seventy years.

East and North rivers.—New York City: floating ice in both

rivers on the 3d; East River was choked with ice on the 19th, 28-29th. There was an unusual amount of drift ice in the upper bay on the 23d.

Seneca Lake.—Starkey, Yates Co., N. Y.: on the morning of the 22d the lake was frozen over. It rarely occurs that this lake freezes over before February.

North Branch Susquehanna River.—Catawissa, Columbia Co., Pa.: river opened on the 2d and closed again on 20th.

Chesapeake Bay and Baltimore Harbor.—Baltimore, Md.: ice in bay and harbor rendered navigation difficult on 23d, 24th, and 25th; winds cleared the harbor of ice on the 26th.

Kitty Hawk Bay.—Kitty Hawk, N. C.: navigation closed 30th.

Alleghany and Monongahela rivers.—Pittsburg, Pa.: floating ice in both rivers on 1st, 3d to 8th, 22d to 24th, 27th to 29th, and in Alleghany River from 9th to 21st, 23d, 25th, 26th; on the 2d ice carried away a span of the 30th street bridge.

Ohio River.—Portsmouth, Scioto Co., Ohio, 31st: there was more or less floating ice in river during the entire month, and much of the time it was so heavy as to prevent navigation.

Louisville, Ky.: floating ice on 3d rendered navigation dangerous; navigation suspended from 21st to 25th, and 27th, 28th; Cairo, Ill.: floating ice from 17th to 21st.

Mississippi River.—The Mississippi was frozen throughout the month at Keokuk, Iowa, and to the northward.

Saint Louis, Mo.: a rapid rise in river occurred on the 23d, caused by an ice dam at Carondelet, a few miles south.